

REMARKS

In the present Amendment, the specification has been amended to delete embedded hyperlink and/or other form of browser-executable code and to correct a typographical error. Claim 1 has been amended to recite that the fluorine-containing compound is an ester of the formula (I): $\text{CH}_2=\text{C}(-\text{X})-\text{C}(=\text{O})-\text{O}-(\text{CH}_2)_m-\text{Z}-\text{Rf}$ and to incorporate the feature of claim 9 (Rf is a perfluoroalkyl group). Claim 4 has been amended to delete the recitation “for example, an electrostatic filter.” Claim 7 has been amended to incorporate the subject matter of claim 9 and to recite a fluorine-containing compound (a) of the formula $\text{CH}_2=\text{C}(-\text{X})-\text{C}(=\text{O})-\text{O}-(\text{CH}_2)_m-\text{S}-\text{Rf}$. Claim 9 has been cancelled. Claim 12 has been amended to recite an acrylate and to delete the recitation “particularly an alkyl group represented by $\text{C}_n\text{H}_{2n+1}$ (n=1 to 30).” New claims 15-21 have been added. Claims 15-19 correspond to claims 8 and 11-14, respectively, but depend on claim 1, directly or indirectly. Claim 20 recites the subject matter which was deleted from claim 12. Claim 21 corresponds to claim 20, but depend from claim 17. No new matter has been added, and entry of the Amendment is respectfully requested.

Upon entry of the Amendment, claims 1-8 and 10-21 will be pending.

The disclosure was objected to as containing an embedded hyperlink and/or other form of browser-executable code [0006].

The embedded hyperlink and/or other form of browser-executable code have been deleted. Withdrawal of the objection to the disclosure is requested.

Claims 1, 2 and 7-12 were rejected under 35 U.S.C. § 102(b) as being anticipated by Coover, Jr. et al (US 2,521,902).

Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Coover et al.

Claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Coover et al in view of Babirad et al (US 5,239,026).

The above three rejections should be withdrawn because Coover et al and Babirad et al do not disclose or render obvious the present invention, either alone or in combination.

Coover et al was cited as teaching a fluorine-containing polymer which comprises repeating units derived from a fluorine-containing compound of formula (I), wherein X is hydrogen atom or methyl group, Y is NH, and p is 0 (col. 2, lines 6-39).

Claim 1 as amended recites that the fluorine-containing compound is an ester of the formula (I): $\text{CH}_2=\text{C}(-\text{X})-\text{C}(=\text{O})-\text{O}-(\text{CH}_2)_m-\text{Z}-\text{Rf}$, wherein Z is -S- or -SO₂-, and Rf is a perfluoroalkyl group. Claim 7 has been amended to recite a fluorine-containing compound (a) of the formula $\text{CH}_2=\text{C}(-\text{X})-\text{C}(=\text{O})-\text{O}-(\text{CH}_2)_m-\text{S}-\text{Rf}$.

Claims 1 and 7 as amended exclude the fluorine-containing compounds containing amide group of Coover et al. Accordingly, the present claims are not taught or suggested by Coover et al.

Further, the present invention provides a surface treatment agent excellent in water repellency, oil repellency and antifouling property. See paragraph [0009] of the specification.

Coover et al and Babirad et al do not teach or suggest that the specific fluorine-containing polymer defined in amended claim 1 can achieve these advantage effects of the present invention. Further, there is nothing in the cited prior art which would lead one of ordinary skill to modify the fluorine-containing polymer of Coover et al to arrive at the present invention.

Reconsideration and withdrawal of the rejections based on Coover et al and Babirad et al are respectfully requested.

Claims 1-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohmori et al (US 5,069,941).

This rejection should also be withdrawn because Ohmori et al does not disclose or render obvious the present invention.

Ohmori et al was cited as disclosing a surface treatment agent (Abstract) comprising a similar compound having seven or eight carbon atoms in the fluoroalkyl group, $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOCH}_2\text{CH}_2\text{C}_7\text{F}_{15}$ (col. 2, line 67 and col. 6, line 47). Ohmori et al does not disclose the specific fluorine-containing compound of formula (1), wherein Rf is a fluoroalkyl group having 1 to 6 carbon atoms. The reason for rejection was that it would have been obvious to decrease the number of carbon atoms in the fluoroalkyl group so as to increase solubility.

Claim 1 as amended recites that the fluorine-containing compound is an ester of the formula (I): $\text{CH}_2=\text{C}(-\text{X})-\text{C}(=\text{O})-\text{O}-(\text{CH}_2)_m-\text{Z}-\text{Rf}$, wherein Z is -S- or -SO₂-, and Rf is a perfluoroalkyl group.

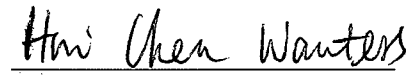
Ohmori et al does not teach or suggest the fluorine-containing compound of formula (I) as recited in the amended claim 1, where -S- or -SO₂- is contained in the formula. Further, Ohmori et al does not teach or suggest that the specific fluorine-containing polymer as defined in amended claim 1 can achieve the advantageous effects of excellent water repellency, oil repellency and anti-fouling property. Moreover, there is nothing in the cited prior art which would lead one of ordinary skill to modify the surface treatment agent of Ohmori et al to arrive at the claimed invention.

Reconsideration and withdrawal of the §103 (a) rejection based on Ohmori et al are respectfully requested.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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23373

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Date: September 2, 2008